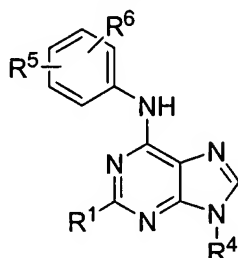


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A compound of formula I:



wherein:

R¹ is a member selected from the group consisting of hydrogen, halogen and -L-R²;

L is a member selected from the group consisting of -O- and -NR³-, wherein R³ is H, or R³ is optionally taken together with R² and the nitrogen to which both are attached to form a heterocycle, optionally substituted with C₁₋₄alkyl;

R² is a member selected from the group consisting of C₁₋₄alkyl, ~~C₃₋₈cycloalkyl~~ and ~~C₀₋₂alkylaryl~~ aryl-C₀₋₂alkyl, substituted with 0-2 R^{2a} groups that are independently selected from the group consisting of halogen, C₁₋₄alkyl, C₁₋₄alkoxy, -N(R^{2b}, R^{2b}), -SO₂N(R^{2b}, R^{2b}), -C(O)N(R^{2b}, R^{2b}) and -O-aryl, or when said R^{2a} groups are on adjacent ring atoms they are optionally taken together to form a member selected from the group consisting of -O-(CH₂)₁₋₂-O-, -O-C(CH₃)₂CH₂- and -(CH₂)₃₋₄;

each R^{2b} group is a member that is independently selected from the group consisting of hydrogen and C₁₋₄alkyl;

R⁴ is a member selected from the group consisting of C₁₋₄alkyl, C₃₋₈cycloalkyl, ~~C₁₋₄alkylhydroxy~~ hydroxy-C₁₋₄alkyl, ~~C₀₋₂alkylaryl~~ aryl-C₀₋₃alkyl, substituted with 0-2 R^{4a} groups, and ~~C₀₋₂alkylheterocycle~~ heterocyclo-C₀₋₂alkyl, optionally substituted with C₁₋₄alkyl;

each R^{4a} group is a member independently selected from the group consisting of hydrogen, halogen, C_{1-4} alkyl, C_{1-4} alkoxy, C_{3-8} cycloalkyl, aryl- C_{0-2} alkyl and aryl, or when said R^{4a} groups are on adjacent ring atoms they are optionally taken together to form $-O-(CH_2)_{1-2}-O-$;

R^5 is hydrogen and R^6 is ~~a member independently selected from the group consisting of halogen, C_{1-4} alkyl, $C(O)-C_{1-4}$ alkyl, $SO_2-N(R^{2b}, R^{2b})$, C_{1-4} alkylhalo, O-aryl and $-N(R^7, R^8)$~~ , or when R^5 and R^6 are on adjacent ring atoms they are optionally taken together to form $-O-(CH_2)_{1-2}-O-$;

~~R^7 is a member selected from the group consisting of hydrogen, C_{1-4} alkyl, C_{1-4} alkylhydroxy, aryl and $C(O)R^{7a}$;~~

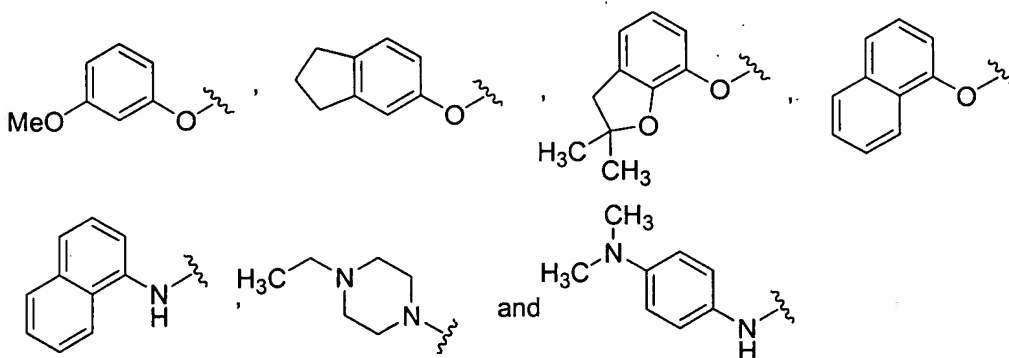
~~R^{7a} is a member selected from the group consisting of C_{1-4} alkyl, C_{1-4} alkylhalo, C_{3-8} cycloalkyl and aryl;~~

~~R^8 is a member selected from the group consisting of H and C_{1-4} alkyl, or R^7~~ and R^8 are optionally taken together with the nitrogen to which they are attached to form a heterocycle, optionally substituted with C_{1-4} alkyl; and

all pharmaceutically acceptable salts and hydrates thereof.

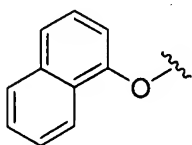
2. (Original) A compound of claim 1, wherein:

R^1 is a member selected from the group consisting of:



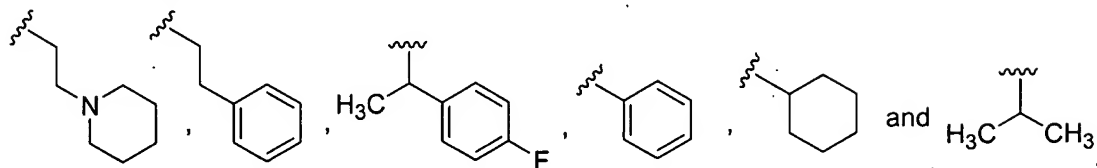
3. (Original) A compound of claim 1, wherein:

R^1 is



1 4. (Original) A compound of claim 1, wherein:

2 R^4 is a member selected from the group consisting of:



1 5. (Original) A compound of claim 1, wherein:

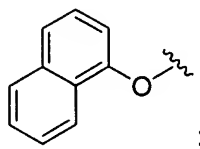
2 R^4 is cyclohexyl.

1 6. (Original) A compound of claim 1, wherein:

2 R^5 is H and R^6 is morpholine.

1 7. (Original) A compound of claim 1, wherein:

2 R^1 is

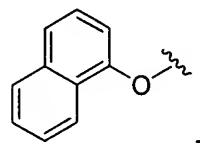


4 R^5 is H; and

5 R^6 is morpholine.

1 8. (Original) A compound of claim 1, wherein:

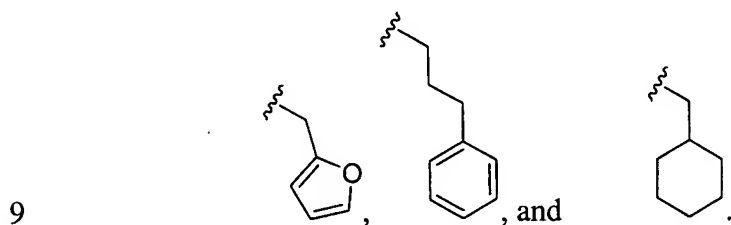
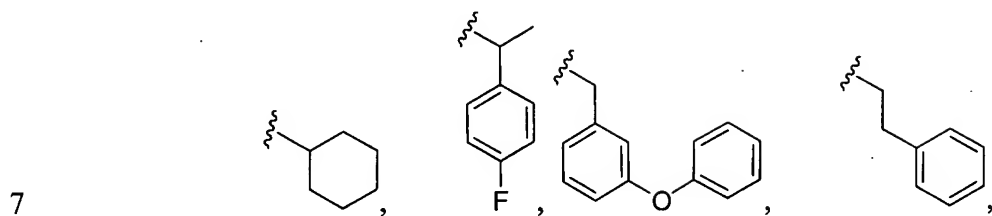
2 R^1 is



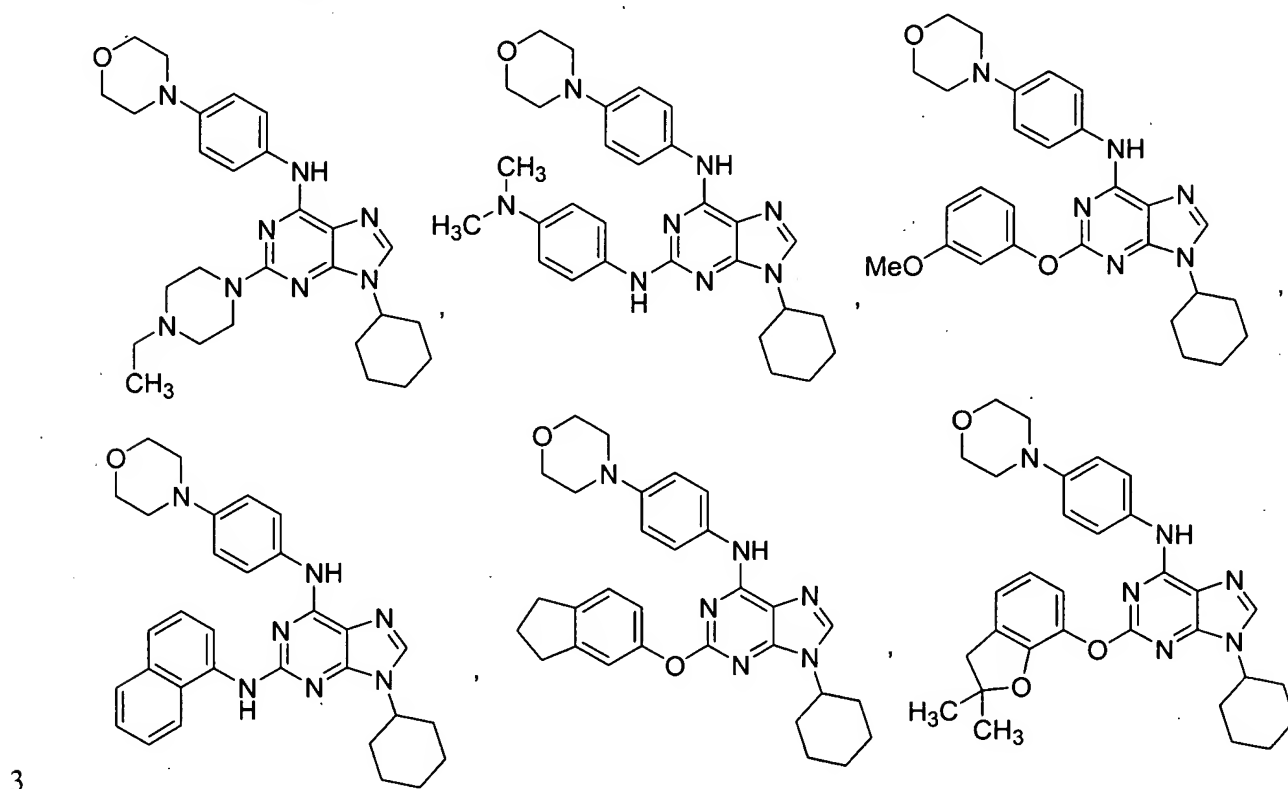
4 R^5 is H;

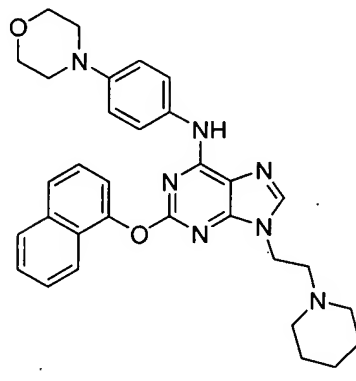
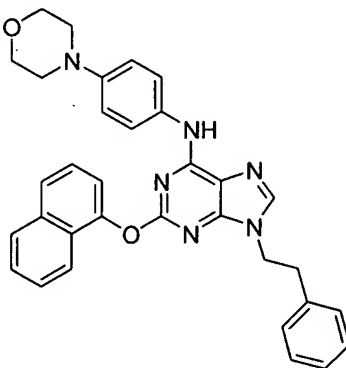
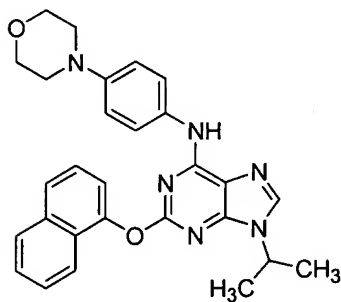
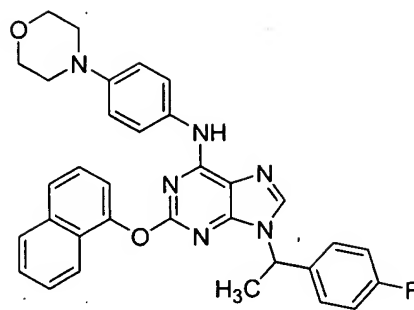
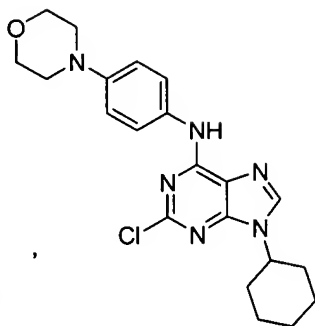
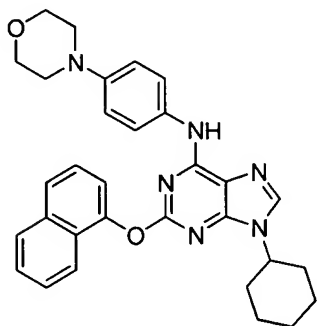
5 R^6 is morpholine; and

6 R^4 is a member selected from the group consisting of:

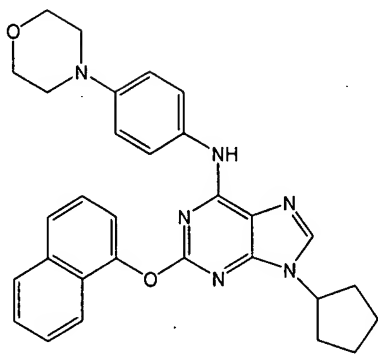
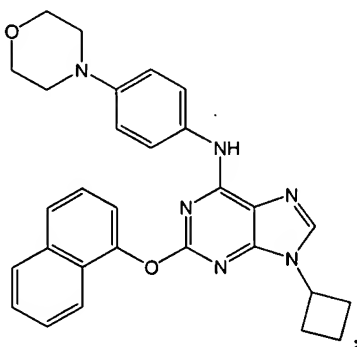
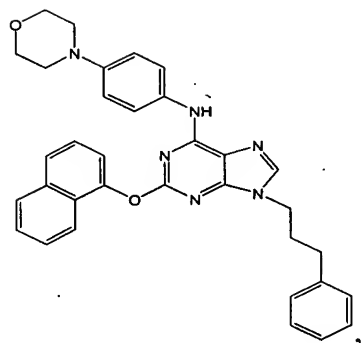


1 9. (Original) A compound of claim 1, wherein the compound is a member
2 selected from the group consisting of:

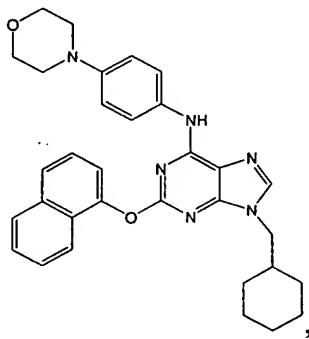
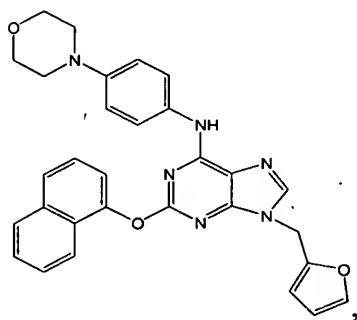




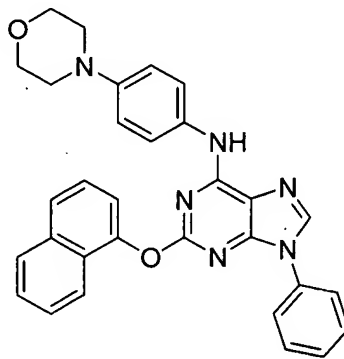
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5

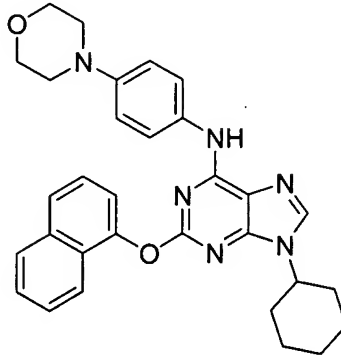


and



6

1 10. (Original) A compound of claim 1, wherein the compound is:



1 11. (Original) A pharmaceutical composition comprising a compound of
2 claim 1 and a pharmaceutically acceptable carrier.

1 12. (Original) A method of inducing osteogenesis, the method comprising:
2 contacting a mammalian cell with a compound of claim 1, whereby the
3 mammalian cell differentiates into a cell of an osteoblast lineage.

1 13. (Original) The method of claim 12, wherein said compound of claim 1 is
2 in a pharmaceutically acceptable carrier.

1 14. (Original) The method of claim 12, wherein the mammalian cell is in a
2 mammal.

1 15. (Original) The method of claim 14, wherein the step of contacting is by
2 oral administration of the compound to the mammal.

1 16. (Original) The method of claim 14, wherein the step of contacting is by
2 intravenous administration of the compound to the mammal.

1 17. (Original) The method of claim 14, wherein the step of contacting is by
2 subcutaneous administration of the compound to the mammal.

1 18. (Original) The method of claim 14, wherein the step of contacting is by
2 intraperitoneal administration of the compound to the mammal.

1 19. (Original) The method of claim 12, further comprising detecting
2 differentiation of the mammalian cell into a cell of an osteoblast lineage.

1 20. (Original) The method of claim 19, whereby differentiation of the
2 mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of an
3 osteogenesis marker gene.

1 21. (Original) The method of claim 20, wherein the osteogenesis marker gene
2 is a gene selected from the group consisting of alkaline phosphatase, collagen type I, osteocalcin,
3 and osteoponin.

1 22. (Original) The method of claim 19, whereby differentiation of the
2 mammalian cell into a cell of an osteoblast lineage is detected by detecting expression of a bone
3 specific transcription factor.

1 23. (Original) The method of claim 22, wherein the bone specific
2 transcription factor is Cbfa1/Runx2.

1 24. (Original) The method of claim 12, wherein the mammalian cell is a stem
2 cell.

1 25. (Original) The method of claim 24, wherein the stem cell is a
2 mesenchymal stem cell.

1 26. (Original) The method of claim 25, wherein the mesenchymal stem cell is
2 isolated from a mouse.

1 27. (Original) The method of claim 26, wherein the mesenchymal stem cell is
2 murine embryonic mesoderm fibroblast cell.

1 28. (Original) The method of claim 25, wherein the mesenchymal stem cell is
2 isolated from a primate.

1 29. (Original) The method of claim 28, wherein the primate is a human.

1 30. (Original) The method of claim 12, wherein the mammalian cell is further
2 contacted with bone morphogenetic protein 4 (BMP-4).

1 31. (Original) The method of claim 30, wherein the mammalian cell is a
2 pre-adipocyte cell.

1 32. (Original) The method of claim 30, wherein the mammalian cell is a
2 myoblast cell.

1 33. (Original) The method of claim 12, wherein the mammalian cell is
2 attached to a solid support.

1 34. (Original) The method of claim 33, wherein the solid support is a three
2 dimensional matrix.

1 35. (Original) The method of claim 33, wherein the solid support is a planar
2 surface.

1 36. (Original) A method of inducing osteogenesis, the method comprising:
2 contacting a mammalian cell with a compound of claim 10, whereby the
3 mammalian cell differentiates into a cell of an osteoblast lineage.

1 37. (Original) The method of claim 36, wherein the mammalian cell is in a
2 mammal.

1 38. (Original) The method of claim 36, wherein the step of contacting is by
2 oral administration of the compound to the mammal.

1 39. (Original) The method of claim 36, wherein the step of contacting is by
2 intravenous administration of the compound to the mammal.

1 40. (Original) The method of claim 36, wherein the step of contacting is by
2 subcutaneous administration of the compound to the mammal.

1 41. (Original) The method of claim 36, wherein the step of contacting is by
2 intraperitoneal administration of the compound to the mammal.

1 42. (Currently amended) A method of treating a bone disorder, the method
2 comprising:
3 contacting a mammalian cell with a compound of claim 1, whereby the
4 mammalian cell differentiates into a cell of an osteoblast lineage, wherein the bone disorder is
5 associated with defective osteoblasts.

1 43. (Canceled)

1 44. (Original) The method of claim 43, wherein the bone disorder is
2 osteoporosis.

1 45. (Original) The method of claim 42, further comprising administering the
2 cell of an osteoblast lineage to an individual with the disorder, thereby treating the disorder.

1 46. (Original) The method of claim 45, wherein the administration is by
2 surgical implantation.